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Notice of Allowability

Application No.

10/722,480

Applicant(s)

BOON ET AL.

Examiner

Kenneth Tang

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment on 11/30/07.
2. ☒ The allowed claim(s) is/are 1-6 and 10-23; now renumbered as 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

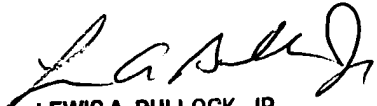
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 1/15/08
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with John C. Gorecki on 1/15/08.
3. The application has been amended as follows:
 - a. In the Specification, page 15, line 12, insert after "software medium 84" -- , for example, a computer readable medium, --.
 - b. In the Claims:
 - i. In claim 1, line 1, replace "scheduling" with -- calculating --;
 - ii. In claim 14, line 2, replace "scheduling" with -- calculating --;
 - iii. In claim 15, line 3, replace "scheduling" with -- calculating --;
 - iv. In claim 23, line 5, replace "scheduling" with -- calculating --.

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are

canceled, the remaining claims must not be renumbered. **When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).**

2. In the on 11/30/07, the claims were misnumbered after claim 19 (on page 6 of the Claim Amendment). Specifically, claim 21 followed claim 19, and claim 17 followed claim 21, which is incorrect.

3. Misnumbered claims 21 (page 7 of the 11/30/07 Claim Amendment) and 17 (page 7 of the 11/30/07 Claim Amendment) have been renumbered to claim 20 and claim 21, respectively.

Allowable Subject Matter

4. Claims 1-6 and 10-23 have now been allowed over the prior art of record.

The following is an Examiner's Statement of Reasons for Allowance:

Per independent claims 1, 12, and 14: Independent claims 1, 12, and 14 include limitations relating to a method and computer readable medium containing a scheduler for execution and containing computer-executable instructions regarding the calculating central processing unit (CPU) usage by a given task with a top level class and sub-class, determining a target CPU usage for the given task from a weight associated with the sub-class representing a relative share of a target CPU usage associated with a parent class and a target CPU usage associated with the top level class, wherein the determination of the target CPU usage comprises forming a quotient by dividing the weight associated with the sub-class by a sum of weights associated with the plurality of sub-classes directly associated with the parent class, and multiplying the target CPU usage associated with the parent class by the quotient.

While these features are individually disclosed in the prior art, the prior art of record does not meet the conditions as suggested in MPEP section 2132, namely:

*“The identical invention must be shown in as complete detail as is contained in the ... claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).”*

In particular, the prior art of record does not disclose features pertaining to the specific calculation of forming a quotient by dividing the weight associated with the sub-class by a sum of weights associated with the plurality of sub-classes directly associated with the parent class, and multiplying the target CPU usage associated with the parent class by the quotient (see independent claims 1, 12, and 14, Specification page 14, lines 19-28), in context of the claims.

The closest prior art uncovered during examination discloses the following elements:

- **U.S. Patent 6,223,201 B1 issued to Reznick** teaches a method of determining central processing unit (CPU) usage by a given task comprising determining a target CPU usage such as an allocated percentage of a processing time or a selected portion of processing time allocated (col. 5, lines 35-40, col. 2, lines 11-19).
- **U.S. Patent 6,263,359 B1 issued to Fong et al.** teaches a method of determining CPU usage by a given task (see Abstract, col. 1, lines 8-9 and 45-61) that associates said given task with a top level class and sub-class (job/task classes arranged in general hierarchy) (col. 2, lines 42-43, col. 14, lines 31-32, col. 3), wherein weights (weights or priority) are associated with said sub-class and a target CPU usage associated with said top level class

(col. 12, lines 17-32, col. 14, lines 41-50, col. 2, lines 6-10 and 42-65, col. 10, lines 18-30).

3. While the prior art of record discloses determining of a target CPU usage (such as an allocated percentage of processing time or a selected portion of processing time allocated) with weights and a hierarchy of classes, none disclose the specific calculation involving forming a quotient by dividing the weight associated with the sub-class by a sum of weights associated with the plurality of sub-classes directly associated with the parent class, and multiplying the target CPU usage associated with the parent class by the quotient. This feature renders the claimed invention non-obvious over the prior art of record. Claims 2-6, 10-11, 13, 15-23 are allowable as being dependent from independent claims 1, 12, and 14 respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

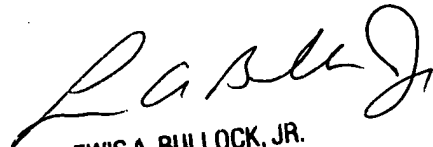
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kt
1/14/08


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER